

Application Serial No.: 09/878,356
Filed: June 12, 2001

REMARKS

Claim 48 has been amended to recite a “first polymer” and a “second polymer”. In addition, said coating is carried out “in the presence of air”, and the “liquid aprotic solution fills at least partially the porosity of the porous composite electrode and comprises in whole or in part an electrolyte separator at the surface of the composite electrode”.

The phrase “operating at 3.5-3.7 V” has been deleted from Claim 52.

Claim 53 “further comprises a prepolymer, oligomer or monomer which is cross-linkable”, whereas Claim 48, from which Claim 53 depends, lacks the limitation of a crosslinkable component.

New Claims 63-66 have been added.

The amended and new claims are believed to be supported throughout the specification, particularly at pages 7-12 of the specification. No new matter is believed to have been added. Claims 48-66 are active.

The rejection of Claims 48-51, 55-56, and 62 under 35 U.S.C. §102(e) over Kronfli is respectfully traversed. Kronfli lacks a step of spreading a liquid aprotic solution comprising a second polymer (i.e., comprising a *polyether* polymer or prepolymer), a polar aprotic solvent, and at least one alkali metal salt, which fills at least partially the porosity of the porous composite electrode.

The claimed process comprises first coating an electrode support with a solution comprising an electrode material and a first polymer, which is dried to form a porous composite electrode. The porous electrode is then coated with a second solution (i.e., the liquid aprotic solution) which comprises a *polyether* polymer or prepolymer, a polar aprotic

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solvent, and at least one alkali metal salt.

Applicants agree that the composite electrode in Example 1 of Kronfli has an electrode support coated with graphite and a “PVdF-g-methacrylic acid graft copolymer” (col. 3, lines 44-53). However, the composite electrode of Example 3 of Kronfli is coated with “a first layer of a PVdF-based electrolyte” (col. 5, line 45). Applicants note that PVdF is a fluorinated hydrocarbon polymer, not a *polyether* polymer or prepolymer as in the claimed method. Furthermore, it is well known that polyethers are substantially more polar than fluropolymers, and therefore would reasonably be expected to have substantially different ion-transporting properties. Thus, Kronfli describes a quite different method which would be expected to provide an electrochemical generator sub-assembly having quite different properties. Accordingly, Kronfli fails to describe or suggest the claimed method.

Furthermore, Kronfli also fails to describe coating an electrolyte separator layer as a liquid aprotic solution onto a porous composite electrode, whereby the pores are penetrated with the solution so that solvent and electrolyte is provided in an amount effective to provide effective ionic conduction. Accordingly, Kronfli fails to anticipate the claimed method.

The rejection of Claims 48-62 under 35 U.S.C. §112, second paragraph is obviated by appropriate amendment. As discussed above, in Claim 48, the phrase “in air” has been replaced by “in the presence of air” and the term “first polymer” has been added. In Claim 52, the phrase “operating at 3.5-3.7 V” has been deleted. Claim 48 now lacks the limitation of a crosslinkable component, which is present in Claim 53. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Applicants note that new Claims 65 and 66 recite a method in which the first and

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second polar aprotic solvents are unequally distributed between the first and second polymer (i.e., the polymer of the composite electrode and separator, respectively), thereby providing a macroscopic separation between said composite cathode and said electrolyte separator.

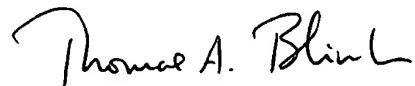
Kronfli fails to describe such a process step. Accordingly, Kronfli also fails to anticipate or suggest the method of Claims 65 and 66.

Applicants wish to thank the Examiner for her indication that Claim 57-58 and 60-61 are allowable.

Accordingly, and for the reasons stated above, Applicants respectfully submit that the present application is now in condition for allowance. Early notification thereof is earnestly solicited.

Respectfully submitted,

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